

Abstract

An alloy design approach to modify and improve existing iron based glasses. The modification is related to increasing the stability of the glass, which results in increased crystallization temperature, and increasing the reduced crystallization temperature
5 $(T_{\text{crystallization}}/T_{\text{melting}})$, which leads to a reduced critical cooling rate for metallic glass formation. The modification to the iron alloys includes the additional of lanthanide elements, including gadolinium.